SOCIAL FUNDS
INNOVATIONS NOTES

Microinsurance: Extending Pro-Poor Risk Management through the Social Fund Platform

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Microinsurance can be an effective complement to existing menus of social protection programs. A flexible and powerful instrument, microinsurance (MI) reduces vulnerability and mitigates the negative effects of external shocks on poor households. However, microinsurance programs require well-developed institutional arrangements in order to run in an efficient and effective manner. Such conditions can be difficult to find in low-income countries. Social Funds can help bridge this gap, standing as a platform to organize and deliver microinsurance products. This Social Funds Innovations Note introduces some of the primary design principles behind microinsurance program development, highlighting cases of best practice, and suggests how Social Funds can be used to deliver microinsurance services more effectively to poor households.

WHY MICROINSURANCE? HOUSEHOLD VULNERABILITY AND RISK CONSIDERATIONS

Low-income households are particularly vulnerable to risk and negative external shocks (e.g., natural disaster; illness/ death of main breadwinner) due to their low asset bases. In the absence of functioning insurance markets, poor people in developing countries have created a number of formal and informal instruments to manage such risk. These include risk-pooling schemes (e.g., funeral and burial societies); income support (e.g., credit arrangements; transfers), and consumption smoothing arrangements (e.g., savings; grain banks) (see Bhattamishra and Barrett 2008). However, such informal and formal approaches offer limited protection, low returns for households, and are prone to breakdown during emergencies. Community-based risk management schemes also rely heavily on personal relations between participants, limiting scalability and geographic spread. Even formal support programs such as food-for-work may be exclusionary, as in the case of female-headed households often left out of such work programs as they face difficulty making the required labor contribution.

Formal insurance instruments can offer superior risk management alternatives, provided poor households can access these services. Without insurance, low-income households forego higher-return livelihood strategies for lower-risk avenues that reduce risk. Insurance products assume such risk thus reducing household efficiency losses and protecting assets so that the poor can escape poverty traps. Insurance instruments pool the risks of individuals of a similar risk class, and transfer it to a larger and more diverse group of market participants through the 'hedging' process. Traditional forms of insurance, however, have often been beyond the reach of poor persons. Innovations in microinsurance aim to increase outreach and coverage across lower income tiers.

WHAT IS MICROINSURANCE?

Microinsurance is "the protection of low-income people against specific perils in exchange for regular premium payments, proportionate to the likelihood and cost of the risk involved" (CGAP 2003). In contrast to savings or transfers, microinsurance is not limited in outreach or coverage. It can be provided by a range of different providers. Products

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Box 1: Benefits of Microinsurance

Microinsurance is a powerful tool for:

- Protecting the poor and their assets from negative external shocks
- Compensating the effects of covariate shocks (e.g., natural disasters)
- Addressing gender-specific vulnerabilities
- Freeing up household capital for investment in small enterprise
- Helping households avoid poverty traps
- Expanding informal insurance schemes and social protection

may develop from a natural extension of existing microfinance provision or in coordination with health care service delivery (ibid). To serve the poor, microinsurance products must be specifically tailored to the poor's priority needs for risk protection in terms of coverage types, be easy to understand, and offer affordable premiums (ibid).

RISKS FACED BY POOR HOUSEHOLDS AND IMPLICATIONS FOR MICROINSURANCE PRODUCT DEVELOPMENT

The capacity of households to cope with a shock depends in part on risk source, correlation, frequency and intensity. Risks can be natural (e.g., natural disasters) or human-induced (e.g., economic shocks). Risks can be correlated among individuals from the same locality (i.e., *covariate risk*), as in the case of floods or droughts, or be uncorrelated and affect only individual households (i.e., *idiosyncratic risk*), as with illness or accident. Further, risks can be low frequency but with high economic impact (known as catastrophic risk), or high frequency with low economic impact (*non-catastrophic*). The nature of risks insured requires different MI product design responses. Savings, credit, emergency loans and self-insurance are more flexible instruments than insurance, and useful in mitigating small loss events that occur frequently and predictably. In contrast, only risks resulting in exceptional losses are considered insurable (Levin 2007). Risk pooling allows for broader coverage against risk than individual households can provide on their own (particularly for covariate risks that frequently lead to breakdown of community-based risk management when all households face financial strains simultaneously).

NEED FOR ITERATIVE PRODUCT DEVELOPMENT

The success of a microinsurance (MI) program depends on the trust clients have in the insurance product and the MI institution servicing it. Product outreach and successful uptake by clients requires simple explanations of risk-pooling and insurance services more generally. Similarly, transparent, easily accessible policies and claims procedures help maintain trust between the MI institution and policyholders. Social funds and similar institutions with good community presence can help ease this transition. An iterative process of product design, testing and roll-out is preferable. Product development has to be client-centered, competition-focused and matched to the capacity of the institutions (both insurer and delivery institutions). Each step must be informed by an understanding of the clients' needs and financial capacity to honor long-term financial obligations; the competitive landscape; and MI institutional requirements. Market research should investigate the regulatory environment; range of competing social protection instruments and insurance products; potential delivery channels; and risk data[1] necessary to develop a MI product.[2]

The case of Afat Vimo highlights the role of intermediaries and the potential for combining insurance schemes that meet the specific needs of low-income households at affordable premiums.[3] The All-India Disaster Mitigation Institute (AIDMI), together with the Provention Consortium, introduced the micro-insurance project 'Afat

[1] Unavailable or flawed risk data (mortality and morbidity tables) adds to the difficulty to construct actuarial fair insurance products for low-income countries.
[2] For a more detailed discussion of MI product development see Churchill (2006).
[3] This description of Afat Vimo draws on SouthAsiaDisasterNet (2003).

Box 2: Common User Priorities for Microinsurance

- Life insurance
- Health insurance
- Agricultural insurance
- Livestock insurance

Vimo' in 2004 as pro-poor disaster insurance.[4] Afat Vimo combines micro-insurance, microcredit and micro-mitigation products for low-cost local risk transfer. It insures policyholders in the event of 19 disaster types, including earthquakes, cyclones and landslides. Non-life damages to a policyholder's house, household assets, trade-stock, and/or losses of wages and livelihood are covered up to INR 75,000. The life insurance component pays out INR 20,000 in the case of death. Yearly premiums are set at INR 146 (i.e., roughly three days of wages for agricultural laborers). Afat Vimo specifically targets the poor among the disaster-affected. Beneficiaries are those who are: i. at risk of being disaster-affected; ii. enrolled in AIDMI's Livelihood Relief Fund; iii. earning an annual income of INR 12,000–18,000; iv. hold average assets of INR 9,000. The unique product design element of Afat Vimo lies in the way it bundles non-life and life insurance components from different insurance companies into a single policy. AIDMI acts as an intermediary for Afat Vimo, facilitating interactions between communities and insurance companies. AIDMI settles upfront the premiums payment of the beneficiaries to ensure immediate coverage. Subsequently, AIDMI collects the premiums and supports the beneficiaries with claims settlement. Capacity-building is a key focus: AIDMI trains policyholders for emergencies, and also on legal and procedural requirements. From 2004–06, Afat Vimo's membership grew by 675% to 5597. Renewal rates averaged around 88%, signaling the strength of its unified policy design.

Pricing

Setting an insurance premium rate is a tricky task. Low premiums can de-capitalize insurance providers, while high premiums are neither market-competitive nor accepted by low-income households. Premiums have to be set in line with the financial abilities of low-income households while meeting the costs of service provision and the capital needed to settle claims. New MI products should only be developed with the assistance of an actuary or insurance expert.[5]

To illustrate this, we look at the case of a Microfinance Institution (MFI) in Kenya.[6] In 2001, the Catholic organization Cent based in Kisumu, Kenya introduced through its MFI a health insurance program called Community Health Plan (CHeaP). However, staff had underestimated the actuarial knowledge necessary to design an insurance product and linked the insurance too closely to credit and savings. As a result, premiums were set significantly below potential health care outlays. CHeaP quickly realized that that a financial failure would jeopardize its institution-building efforts in the community and harm the potential for further insurance initiatives. The organization learned that insurance is a more complex financial product than savings or credit instruments. The key sustainability challenge for microinsurance programs is that of striking a balance between coverage (of large numbers of poor persons), costs (for the insurer) and affordability (for the client) (Churchill 2006).

MICROINSURANCE PRODUCT TYPES

Microinsurance can be designed in myriad ways. Depending on the risk insured, activity levels, employed assets and risk exposure, different insurance types may be appropriate. The following provides an overview of common MI product types.

Health Insurance

Health insurance directly addresses disease, reduces mortality, and improves health. Notably, the World Bank's Social Protection Strategy Paper (World Bank 2001) identifies health insurance as an important complement

[4] RRTI works also in partnership with the Hazard Risk Management Unit of the World Bank and the International Federation of Red Cross and Red Crescent.
[5] For more information on formal pricing, see Churchill et al (2003).
[6] This case draws on McCord and Osinde (2002) and McCord (2006–08).

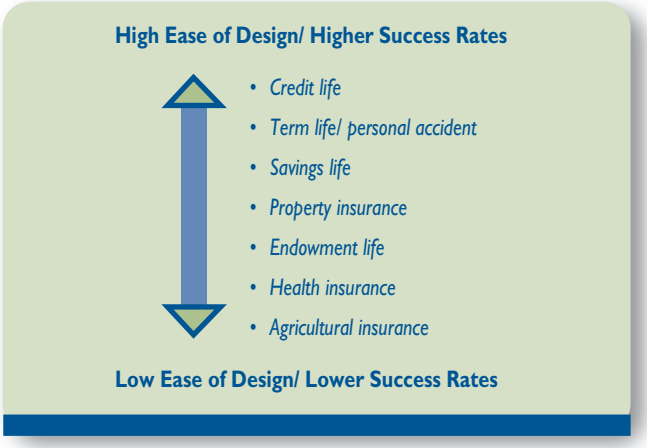
to poverty reduction efforts. Microinsurance for health can be designed to cover groups (e.g., MFI clients, cooperative members), as well as households. [Individuals are not insured, however, in order to control for adverse selection].[7] High-risk persons such as the elderly are also typically excluded to keep premiums at an affordable level. Further, coverage periods of less than one year pose administrative difficulties, and also pose the risk of adverse selection due to seasonal trends in illness incidence (e.g., onset of malaria season) (Mc Cord 2007).

Health insurance is the most difficult MI product to implement, requiring significant managerial and actuarial capacity (see Figure 1 for a rough approximation of levels of program design difficulty among insurance products). Health insurers need to understand risk management techniques and the solutions for controlling adverse selection. Health insurance is only effective where there is an existing infrastructure of health service providers and accessible hospitals—even if at a distance from policyholders.

Life Insurance

Death of a household's main breadwinner severely impacts household welfare. Life insurance can mitigate the financial shock of the breadwinner's death, by providing income assistance to the family; covering funeral expenses, and debt payments and principal. Life insurance products are not affected by moral hazard issues, and unlike health insurance, do not require existing physical infrastructure. The simple structure of life insurance allows for a variety of marketing and distribution channels. Life insurance can be relatively easily bundled with other types of insurance to structure a product that specifically meets the needs of low-income families. For example, credit life insurance can be sold together with loans. The premiums are collected with loan repayments in order to reduce administrative costs. Funeral and life insurance can be delivered through funeral parlors or MFIs. Some insurance companies in India draw on consumer retailing strategies to sell their products in computer kiosks or bundled with cell phone packages (Churchill 2006).

Figure 1: Program Types: Ease of Design and Success



Source: Adapted from Churchill 2006

Index-Based Insurance: A Recent Innovation in Risk Management Instruments

Poor households are particularly vulnerable to catastrophic weather events that threaten crop failure and livelihood loss. Index-based insurance is an innovative instrument to overcome shortcomings of traditional agricultural insurance, including adverse selection, moral hazard and administration costs. The payout and payment structure in index-based insurance is predetermined and triggered by an index (typically rainfall) highly correlated to a particular crop yield or livestock mortality rate. Data from weather stations is used to calculate the index. Payment starts when the index falls below a certain threshold.

Index-based insurance is also suitable for risk layering. Depending on the extent of the loss, the farmer, insurance company, state or donor community can cover the losses. In Mongolia, the Government of Mongolia and the World Bank introduced an index-based mortality livestock insurance in 2006 that worked with three different risk layers. The insurance is linked to the mortality rate of herds of all types and sizes and is triggered when losses exceed the average mortality rate of 7 percent. (Losses under the

[7] It is possible to insure individuals under microinsurance programs (e.g., BRAC program,) but costs are double those of programs using group pricing (Churchill 2006). Thus, a high participation rate amongst the target group is required to keep the program financially safe (ibid).

7 percent of herd value threshold are borne by the herders). Private insurance is triggered for losses between 7 percent to 30 percent. The Government provides the final risk layer, indemnifying losses exceeding 30 percent of the estimated value of the herd (Alderman 2007).

Use of such a transparent index mechanism reduces administration and transaction costs for identifying losses, and limits problems of moral hazard and adverse selection (since the index cannot be influenced by individuals, and payouts are predetermined). Secondly, it makes agricultural insurance more attractive to international reinsurers and provides protection against correlated[8] risk. It introduces different risk layers to allow for wider coverage. Its design features also allow for quick response during disaster response efforts and help improve agency response time in settling claims. Retailing of index insurance can take different forms. Index contracts are either sold individually or bundled with related risk-management services (microfinance, technical assistance, advisory services). In India, a seed company acquired rainfall insurance which they sold together with their seed packages.

The major limitation of index-based insurances is the probability that the insurance does not represent individual losses. This is referred to as *basis risk*. Basis risk can significantly reduce the acceptability of the risk management instrument. Group coverage and risk pooling of farmers can reduce basis risk by allowing the group or community to allocate the funds among themselves, given that local users will have improved information on losses to individuals, including the ability to verify losses.

DELIVERY MODELS FOR MICROINSURANCE

Delivering the best possible benefits and affordable premiums to poor individuals can occur only when administrative costs are minimized. Different distribution models can be considered, with various cost effects.

Community-Based Organization (CBO)

In the Community-Based Organization (CBO) model, local community organizations, MFI, NGOs, or cooperatives jointly develop and distribute their own insurance. The CBO pools, manages and absorbs the risk. This model fosters strong "ownership" by CBOs and member policyholders. Community involvement and peer-monitoring reduces information, enforcement costs (transaction costs) and the probability of adverse selection and moral hazard. Studies have shown that community participation achieves better targeting outcomes and reduces the administrative costs of handling transfer payments.

However, CBOs usually lack the management and actuarial expertise and financial backing of regulated insurers. CBOs often base their pricing strategies/ premiums on peoples' financial abilities, and not on the required financial and managerial resources needed to provide adequate coverage. MI insurance companies need to have enough cash reserves at hand to balance cash flow fluctuations. CBOs usually have only limited reserves and thus can run the risk of not honoring their payment obligations. Lack of reinsurance partners further constrains their ability to properly manage deficits. CBOs often have weak management controls. Legislation and regulation may limit the expansion of MI (e.g., only licensed providers are allowed to sell insurance in India). Government regulators are also typically skeptical about the abilities of non-insurers to manage insurance programs. Finally, gender, kinship, geographical proximity, ethnicity, social networks, wealth have a strong influence on the level of inclusion in community insurance networks. The geographical boundaries of CBOs effectively limit the amount of potential policyholders and the size of the risk pool, meaning CBO-linked insurance programs may fail to provide protection against covariate risks.

Full Service Model

In this model, a NGO or other organization operates the insurance scheme and fully absorbs risks, profit and loss. Full service models require substantially investment in human and financial resources and acquisition of actu-

[8] Correlated risks arise when a weather event is affecting a large number of farmers in the same region. Small-scale financial institutions do not have the financial capacity to cope with such a loss and have to diversify the risk of the portfolio by attracting international reinsurers.

arial expertise before becoming operational. This sort of approach is not widespread. An example is SPANDANA in Guntur, Andhra Pradesh, India which serves poor urban women in coastal cities of that state. SPANDANA became fully operational in 1998 and now has over 115,000 clients, served by 181 staff in 31 branches, covering a total credit and insurance portfolio of over USD 12 million. Credit life insurance (i.e., loan protection) is bundled in a compulsory manner with the NGO's loan products (at 1 per cent of the loan amount), so that in the event of a female borrower's death or death of her husband, or in case of fire event, the loan is written off. A nominal life insurance policy is also included for female borrowers: they receive around USD 110 in case of the death of their husband (M-CRIL 2005). Credit life insurance is the simplest form of insurance and a good one for small groups entering the insurance market.

Provider Model

Microfinance institutions and commercial banks can directly market MI products to potential clients, as in the provider model. This model requires a well-established distribution network and is widely used in the general insurance market. The model suffers from high transaction costs, when applied in low-income, low-margin markets such as rural areas with dispersed populations.

Partner-Agent Model and Social Funds

In the partner-agent model, insurers (both commercial and public) collaborate with an MFI/ NGO to develop a MI program. The MI programs then use as intermediary (such as a NGO or MFI institution, or local bank) to liaise between the customer and insurance company, and manage marketing and administration functions. The insurer bears the risk of the insurance policy while the MFI/ NGO utilizes its distribution channels to bring the product to communities. MFIs/ NGOs with strong ties to communities are most successful in this model. They train their clients in MFI products, are experienced in transaction processes, and raise financial services awareness among low-income households. This model minimizes distribution costs, while increasing outreach as well as affordability.

Social Funds are well placed to assume the role of the intermediary in areas that lack well-established NGOs or MFIs. They can also help provide the start-up costs for microinsurance programs.

AGENCY LINKAGES

Linking MI programs to other MFI schemes and partners is a helpful strategy to compensate for some of the disadvantages outlined above and to create economies of scale (Churchill, 2006). National social protection programs may also be complemented with MI elements. Risk layering can be undertaken by linking with reinsurers or insurance federations. Service delivery can include direct contracting of NGOs or public health programs, as well as bundling with other products such as those provided by coops.

The key microinsurance challenge lies at the nexus of coverage, costs and affordability. Retrospective premium collection for example leads to increased risks to the agency, as well as increased administrative costs. Mobile and dispersed client bases in some countries (such as pastoralists or circular migrants) also pose significant though not insurmountable challenges for product design, and highlight the need for a socially-grounded understanding of the prospective client base and sufficient due diligence on household risks and carrying capacity.

DEVELOPING MICROINSURANCE: POLICY IMPLICATIONS FOR SOCIAL FUNDS

As noted above, social funds are a particularly viable platform for delivering microinsurance products. Social Funds (SF) channel grants to communities for small-scale development projects such as road and school construction (de Silva and Sum 2007). Social funds typically assist groups affected by e.g., natural disasters and in some cases provide microfinance services, among other activities. Institutionally, SFs enjoy a high degree of financial and operational autonomy. SF's use of private sector-style management practices (e.g., use of results-based monitoring and evaluation; procurement guidelines; competitive recruitment) results in higher operational efficiency. At the project level, Social Funds provide a bridge to community

actors such as local government, community groups and NGOs. SFs' longstanding experience in supporting local institutional development, public goods and services, and local arrangements for ex-ante risk management translate well into their potential to manage and implement microinsurance.

Social Funds' structure and approach offer the following advantages for MI provision.

- *Institutional Capacity*: MI programs can piggyback on the managerial and organizational infrastructure of SFs to decrease administrative and start-up costs.

- *Inclusion of marginalized groups*: CBOs often fail to cover marginalized groups (e.g., women, poor) in their activities. SFs can help offset costs for members of marginalized groups by subsidizing premiums (though this option does present some moral hazard risks and should be carefully assessed and monitored). SF funds can also be deployed to cover for delayed or missing premium payments.[9]

- *Risk Management and Risk Pooling:* SFs' size and resources can augment CBOs with a larger risk pool and well-trained staff for risk and cash management. SF's greater geographical reach and ability to mediate between public and private insurers allow for the inclusion of additional risk layers (including reinsurers) to externalize and diversify risks to a wider spectrum of market participants.

- *Product Development and Support*: SF participatory assessment and development techniques can be employed to develop demand-driven MI products and enhance "ownership". The known "brands" of SFs can also help signal the trustworthiness of MI products. (In as related vein, SFs must also conduct due diligence on MI products potentially on offer so as to reduce their own reputational risk). SFs can also help create demand for MI products and gather essential risk data, resulting in significant lower monitoring, transaction and enforcement costs for MI programs. SFs' cost advantages translate in lower insurance premiums therein increasing product demand.

CONCLUSION

This Note has discussed the role of microinsurance in mitigating external shocks on poor households. Microinsurance has been shown to be a powerful addition to the social risk management product toolbox, and one that is flexible enough to be successful implemented under a variety of institutional forms, including Social Funds.

Nonetheless, careful attention and expert technical input is required in designing microinsurance products and programs as they are significantly more complex than savings and credits programs offered by different organizations. Use of risk layering, using different forms of reinsurance to cover the insurer is crucial from a financial sustainability standpoint, and the use of various outreach mechanisms to reach poor households is necessary from an equity point of view. Some microinsurance product types are more easily designed and implemented (such as credit life insurance, i.e., loan insurance) than others (e.g., health insurance. As the microinsurance practitioner community develops further, it will be important to develop performance benchmarks, refine and codify delivery models, and engage in information exchange and shared learning processes, especially South-South dialogue. Microinsurance offers the potential for significant innovation in public-private partnership arrangements, cooperation across voluntary and private sectors, rural and urban services sector development, and the extension of social protection to underserved populations, for years to come.

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[9] Careful design can help bridge moral hazard problems of SFs as guarantors as in the Afat Vimo case above where the intermediary is used only to pay premiums upfront in a time-bound fashion, rather than as performing a full subsidy role.

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